



HIV Epidemiological Data for Prevention Planning in Maryland

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February 4, 2010

Maryland Infectious Disease and Environmental Health Administration



MISSION

To improve the health of Marylanders by reducing the transmission of infectious diseases, helping impacted persons live longer, healthier lives and protecting individuals and communities from environmental health hazards.

We work in partnership with local health departments, providers, community based organizations and public and private sector agencies to provide public health leadership in the prevention, control, monitoring and treatment of infectious diseases and environmental health hazards.

Outline



- Revised Terminology
- National Data
- Epidemiological Description
- Epidemiological Trends
- Priority Populations Recommendations



Revised Terminology

HIV Disease Timeline



- Exposure
- Infection
- HIV Diagnosis
- HIV Report
- Illness
- AIDS Diagnosis
- AIDS Report
- Death
- Death Report

HIV Disease Estimates



- Exposure
 - Infection = ESTIMATED HIV INCIDENCE
 - HIV Diagnosis
 - HIV Report
 - Illness ESTIMATED
 - AIDS Diagnosis = AIDS
 - AIDS Report INCIDENCE
 - Death = ESTIMATED DEATHS
 - Death Report
- ESTIMATED PREVALENCE

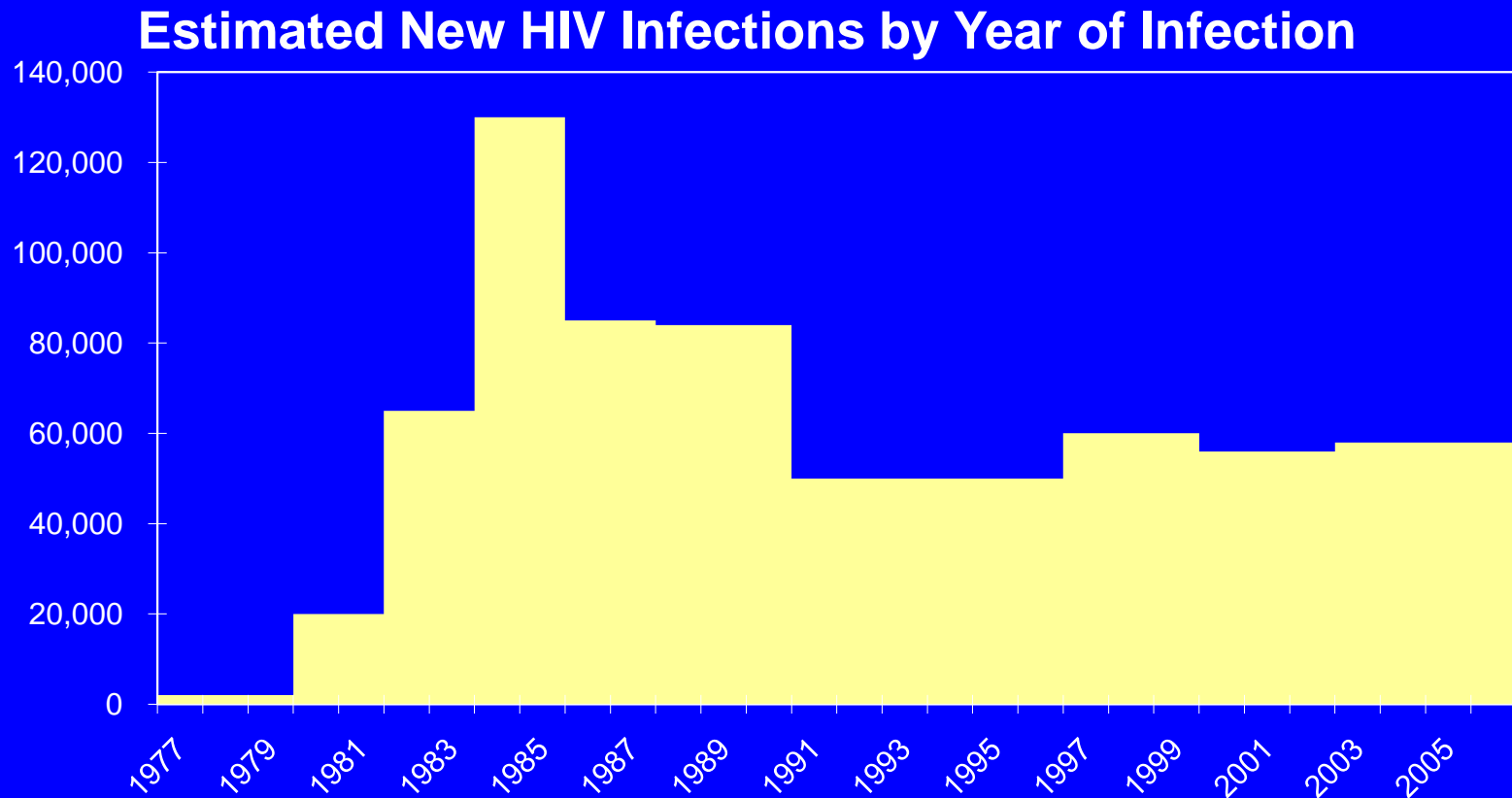
HIV Surveillance Data





National Data

New CDC Incidence Estimate



Source: Hall et al. JAMA, August 2008.

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New CDC Prevalence Estimate



- In 2006
 - 1.1 million Americans were estimated to be living with HIV infection
 - 21% were undiagnosed
 - Source: CDC. Morbidity and Mortality Weekly Report; October 2008; Atlanta.



2007 AIDS Case Report Rates

<u>STATE/TERRITORY</u>	<u>Cases</u>	<u>Rate per 100,000</u>
1. District of Columbia	871	148.1
2. Virgin Islands	34	31.4
3. New York	4,810	24.9
4. Maryland	1,394	24.8
5. Florida	3,961	21.7
6. Puerto Rico	847	21.5
7. Louisiana	879	20.5
8. Delaware	171	19.8
9. Georgia	1,877	19.7
10. South Carolina	742	16.8
<hr/>		
<i>United States</i>	38,384	12.5

2007 AIDS Case Report Rates



<u>METROPOLITAN AREA</u>	<u>Cases</u>	<u>Rate per 100,000</u>
1. Miami, FL	1,792	33.1
2. New Orleans-Metairie-Kenner, LA	325	31.5
3. Baton Rouge, LA	242	31.4
4. Washington, DC-VA-MD-WV	1,618	30.5
5. Baltimore-Towson, MD	791	29.6
6. New York, NY-NJ-PA	5,095	27.1
7T. Jackson, MS	139	26.0
7T. San Francisco, CA	1,091	26.0
9. Columbia, SC	181	25.3
10. Jacksonville, FL	301	23.1
<hr/>		
<i>United States</i>	38,128	12.5

2007 Estimated Adult AIDS Prevalence Rates



<u>STATE/TERRITORY</u>	<u>Cases</u>	<u>Rate per 100,000</u>
1. District of Columbia	8,871	1,750.6
2. New York	75,146	463.5
3. Virgin Islands	330	368.6
4. Puerto Rico	11,484	354.7
5. Maryland	15,652	335.8
6. Florida	47,907	311.5
7. Delaware	1,836	255.5
8. New Jersey	17,628	243.9
9. Louisiana	8,476	240.4
10. Connecticut	6,922	236.1
<i>United States</i>	<i>467,664</i>	<i>185.1</i>



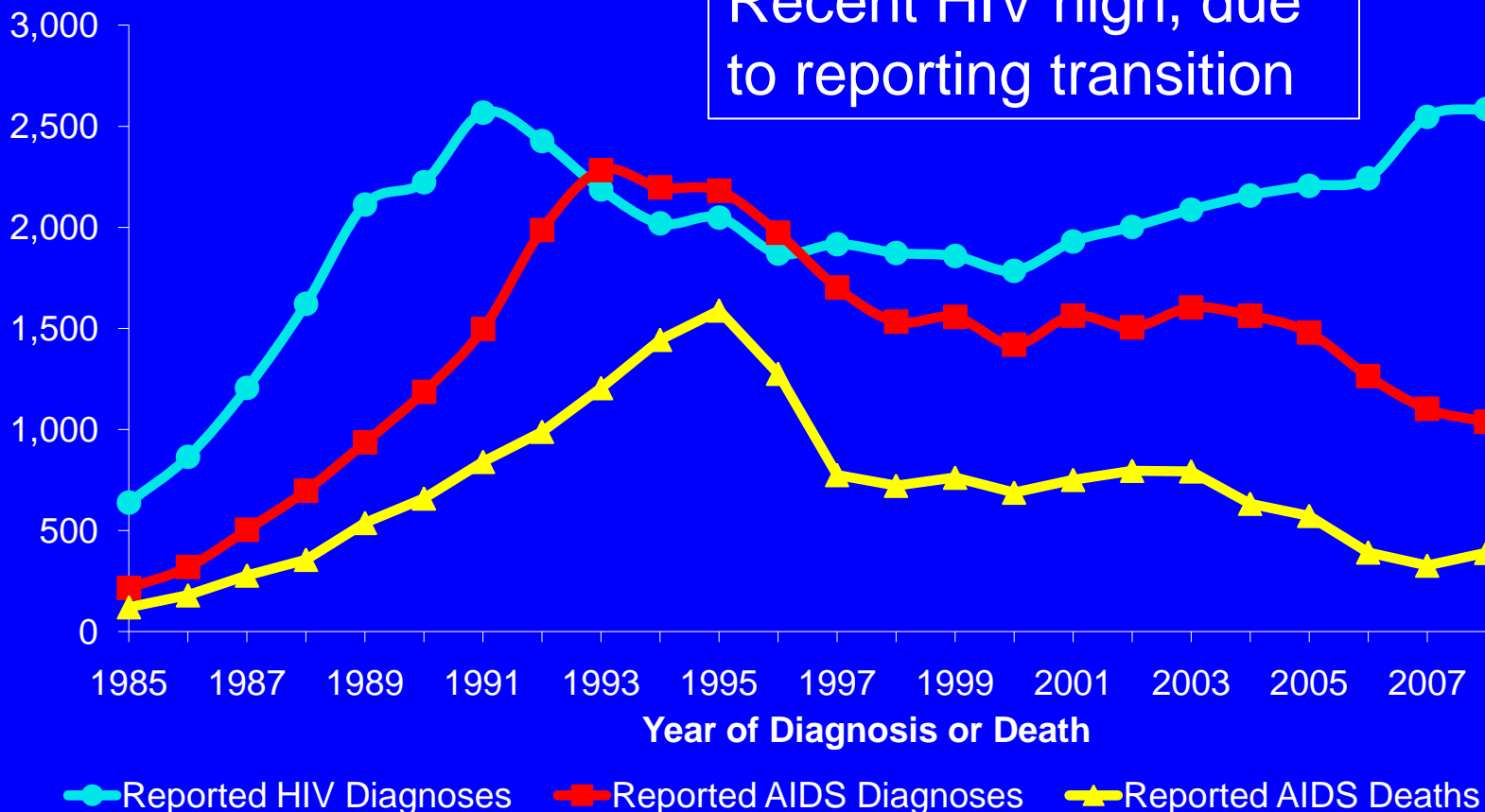
Epidemiological Description

Maryland HIV/AIDS Trends



Number of Events

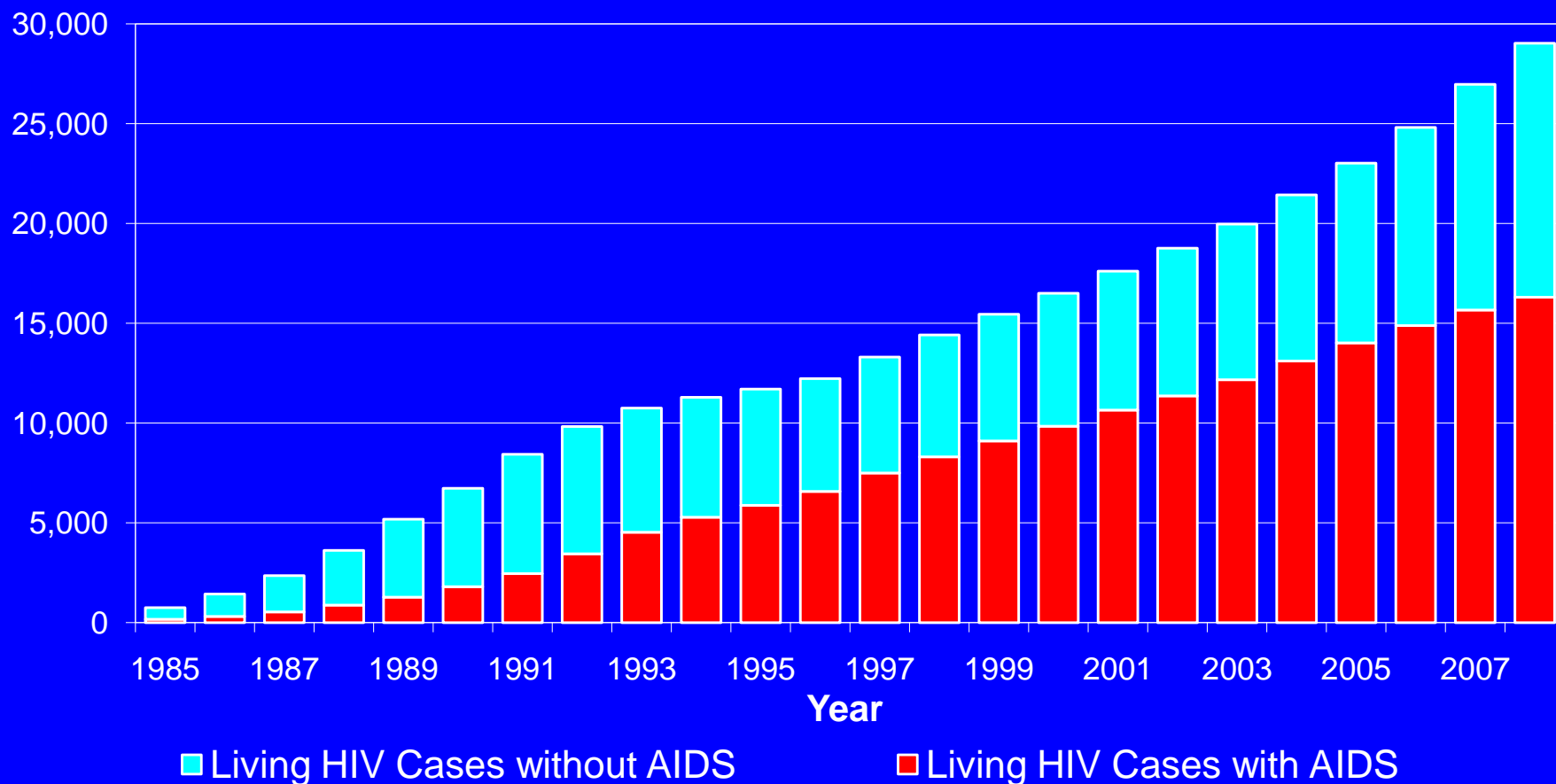
Recent HIV high, due to reporting transition



Maryland Living HIV Cases



Number of Cases





Maryland HIV/AIDS Statistics

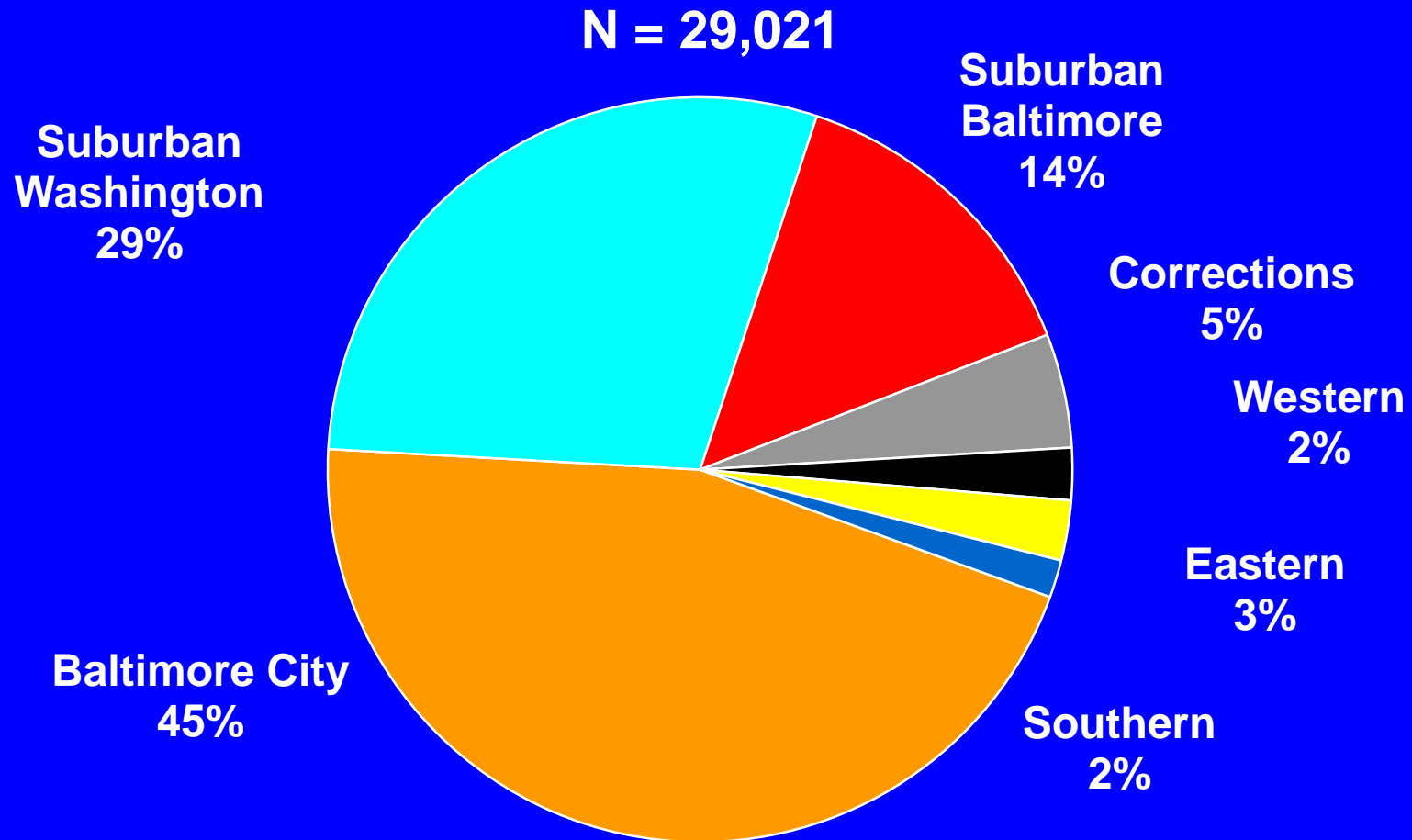
Reported Diagnoses (1/1/08-12/31/08)		per 100,000	1 in X
HIV	2,586	45.9	
AIDS	1,038	18.4	
Living Cases (on 12/31/08)			
HIV without AIDS	12,715	225.7	
HIV with AIDS	16,306	289.4	
HIV	29,021	515.1	194
Cumulative (through 12/31/09)			
HIV	47,999		
HIV with AIDS	33,750	(70.3% of HIV)	
AIDS Deaths	17,282	(51.2% of AIDS)	



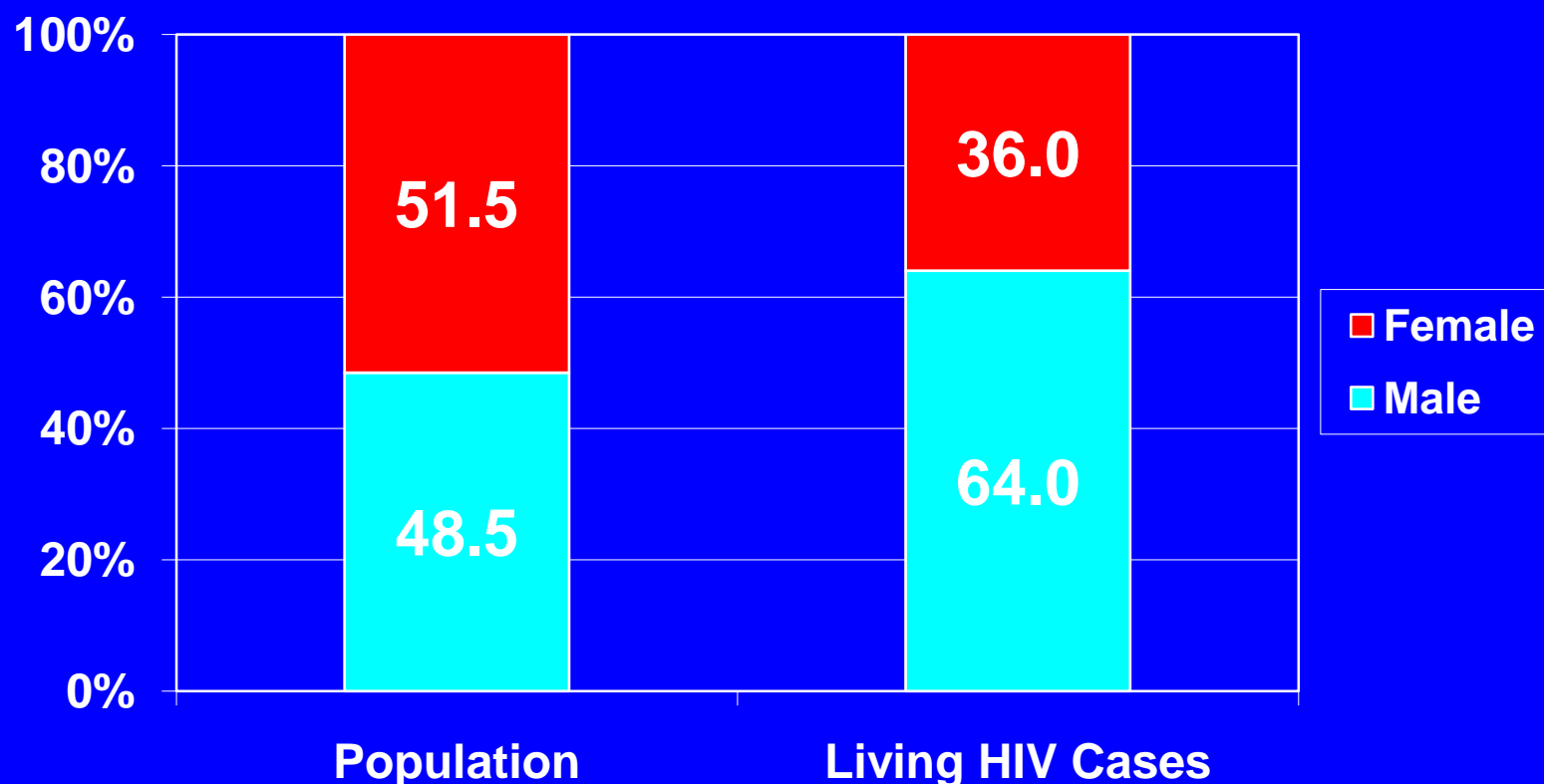
Maryland Living HIV Cases

**Reported HIV cases with or without
an AIDS diagnosis and not reported
to have died as of 12/31/08 as
reported by name through 12/31/09**

Maryland Living HIV Cases by Region, 12/31/08

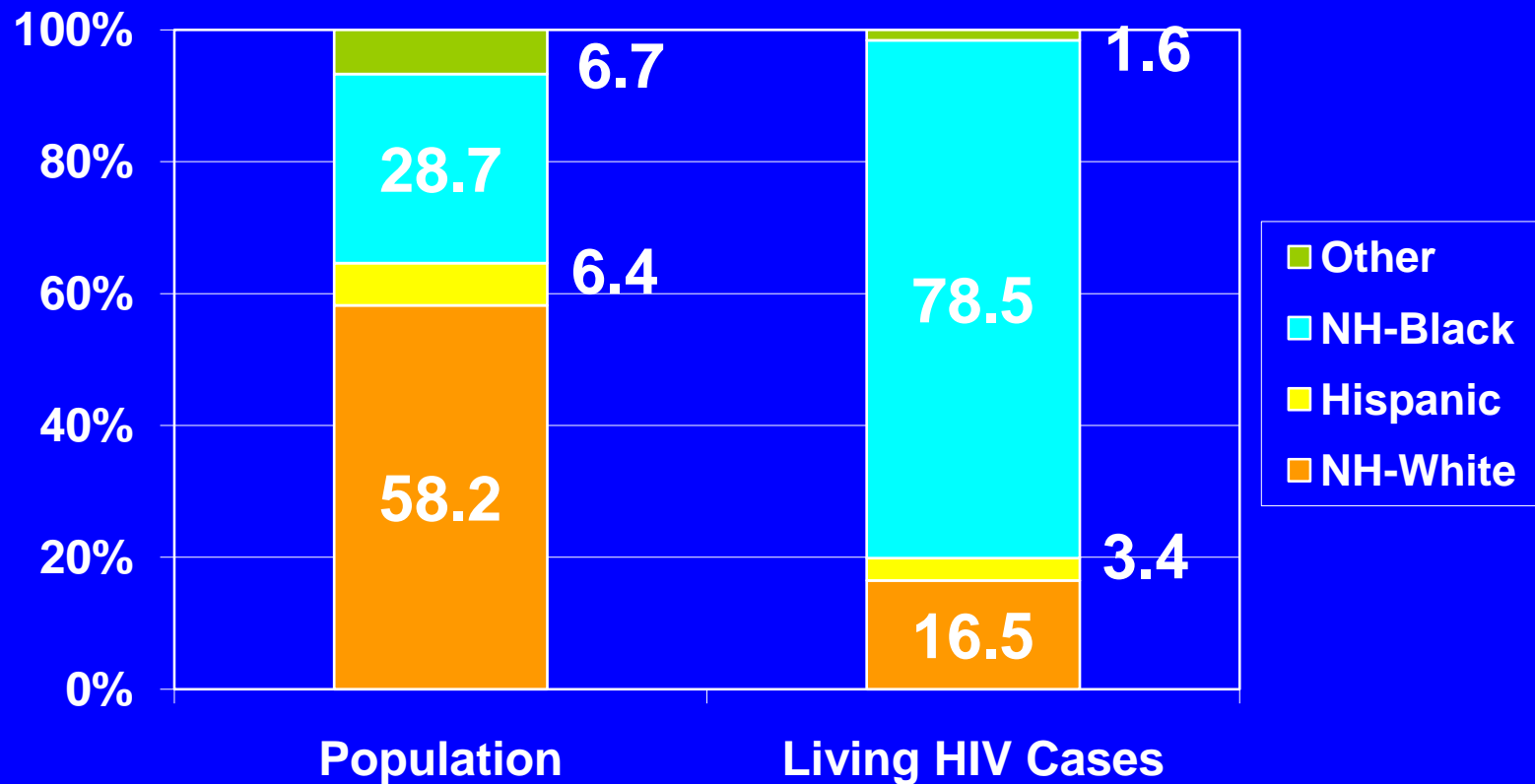


Maryland Population and Living HIV Cases by Gender



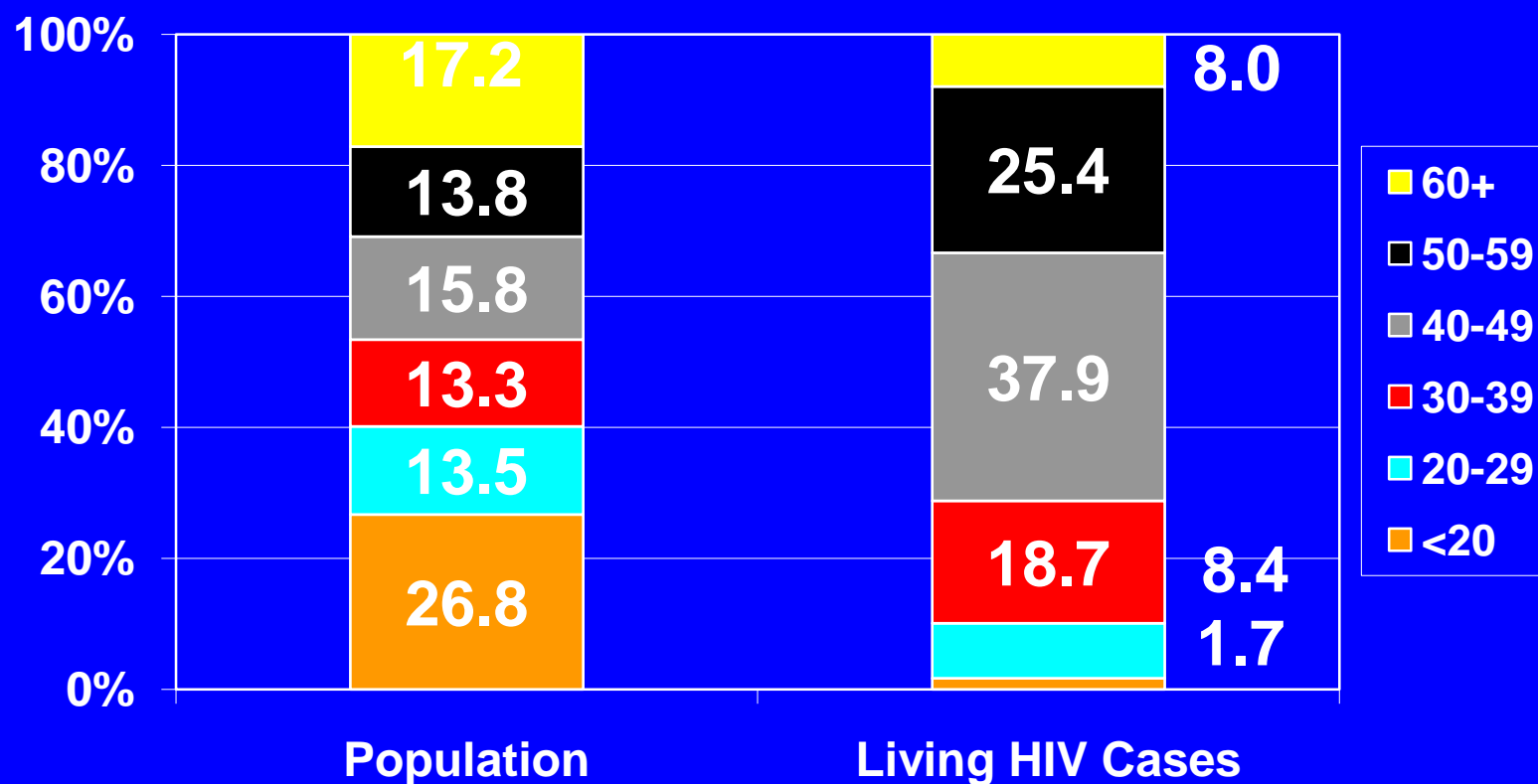
Population on 7/1/08, Cases on 12/31/08

Maryland Population and Living HIV Cases by Race/Ethnicity



Population on 7/1/08, Cases on 12/31/08

Maryland Population and Living HIV Cases by Age



Population on 7/1/08, Cases on 12/31/08

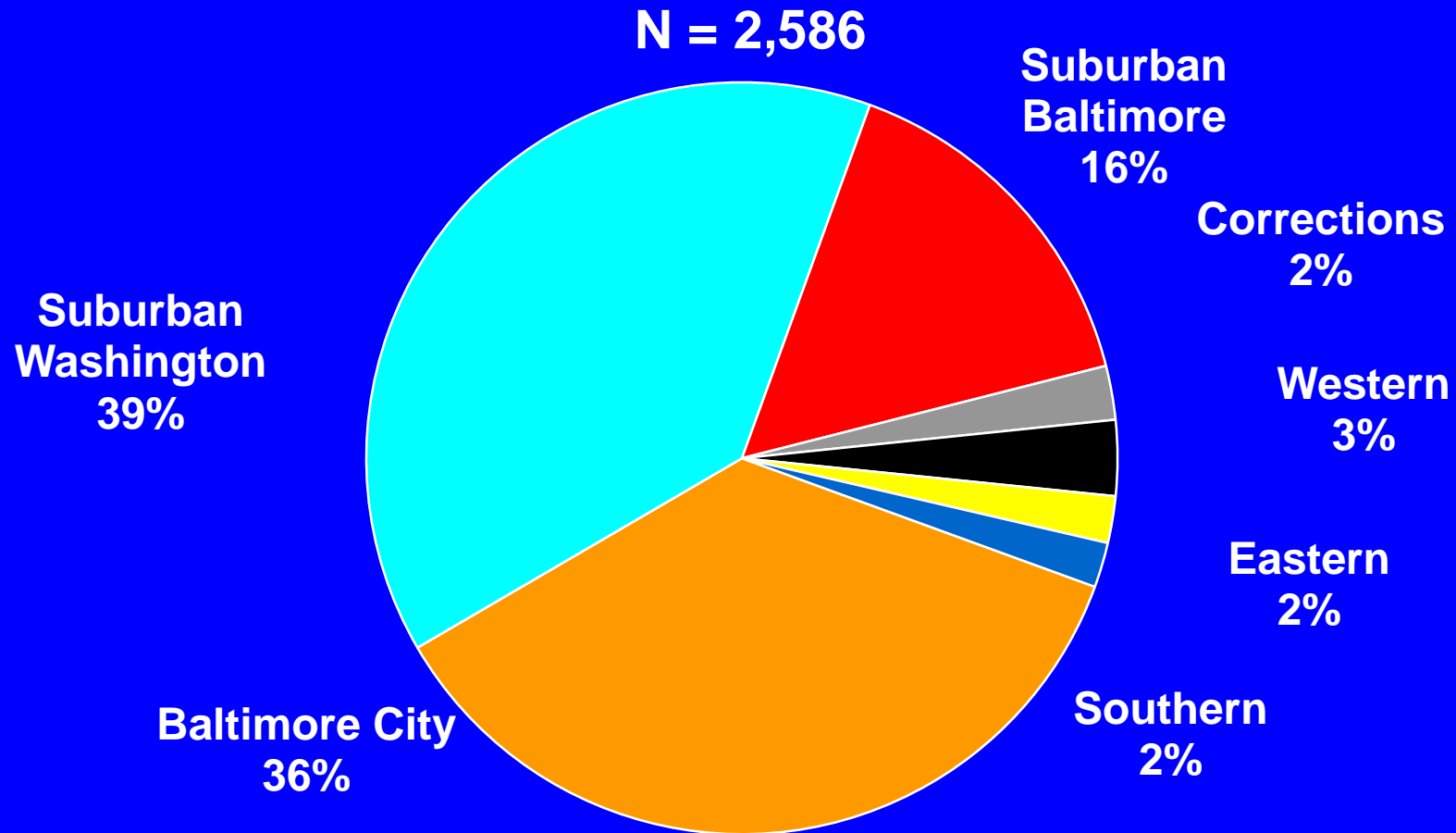
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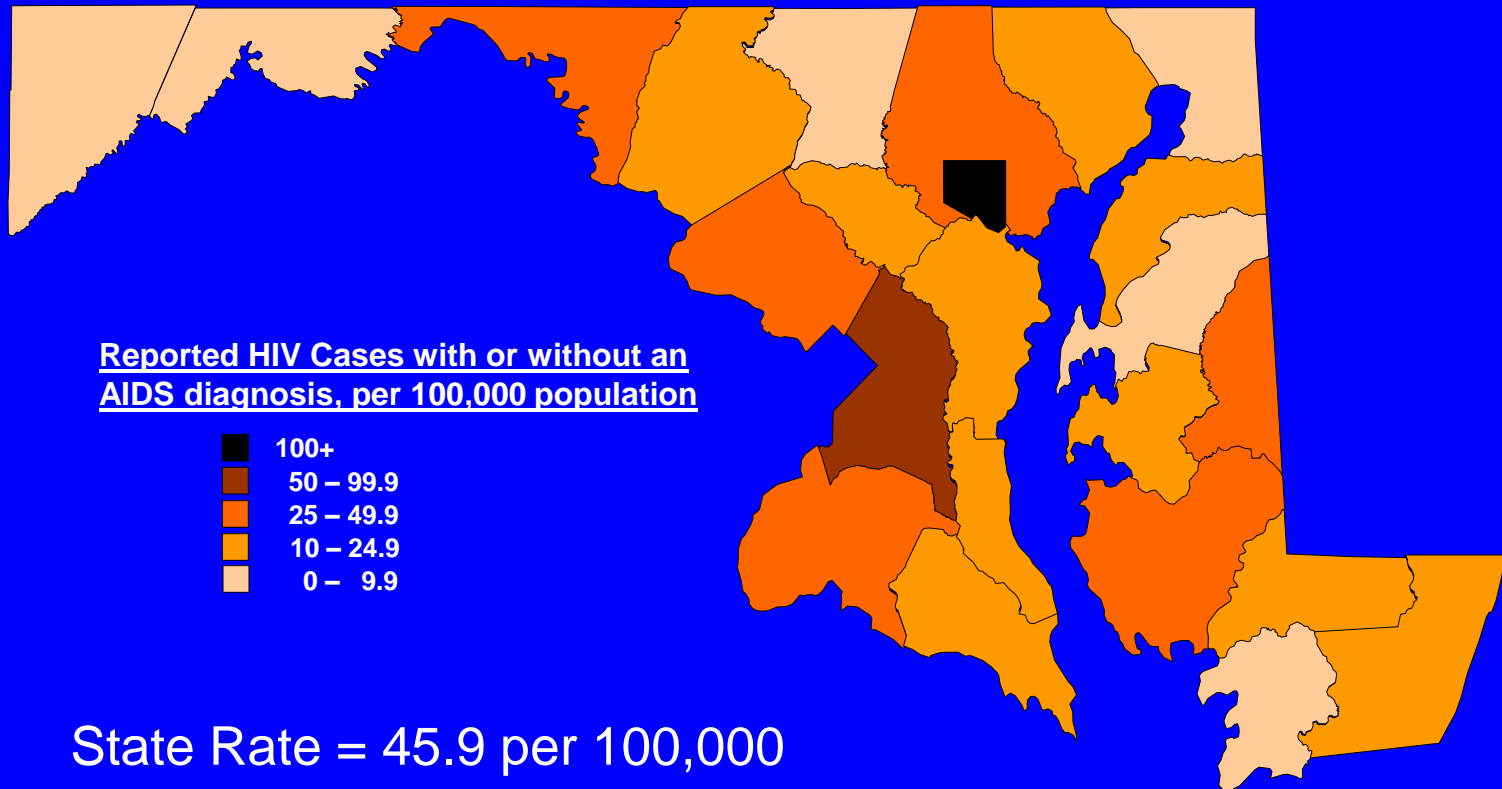
Maryland Reported HIV Diagnoses

**Reported HIV cases with or without
an AIDS diagnosis, diagnosed with
HIV during 2008, as reported by
name through 12/31/09**

Maryland Reported HIV Diagnoses by Region, 2008



Maryland Reported HIV Diagnosis Rates by Jurisdiction, 2008





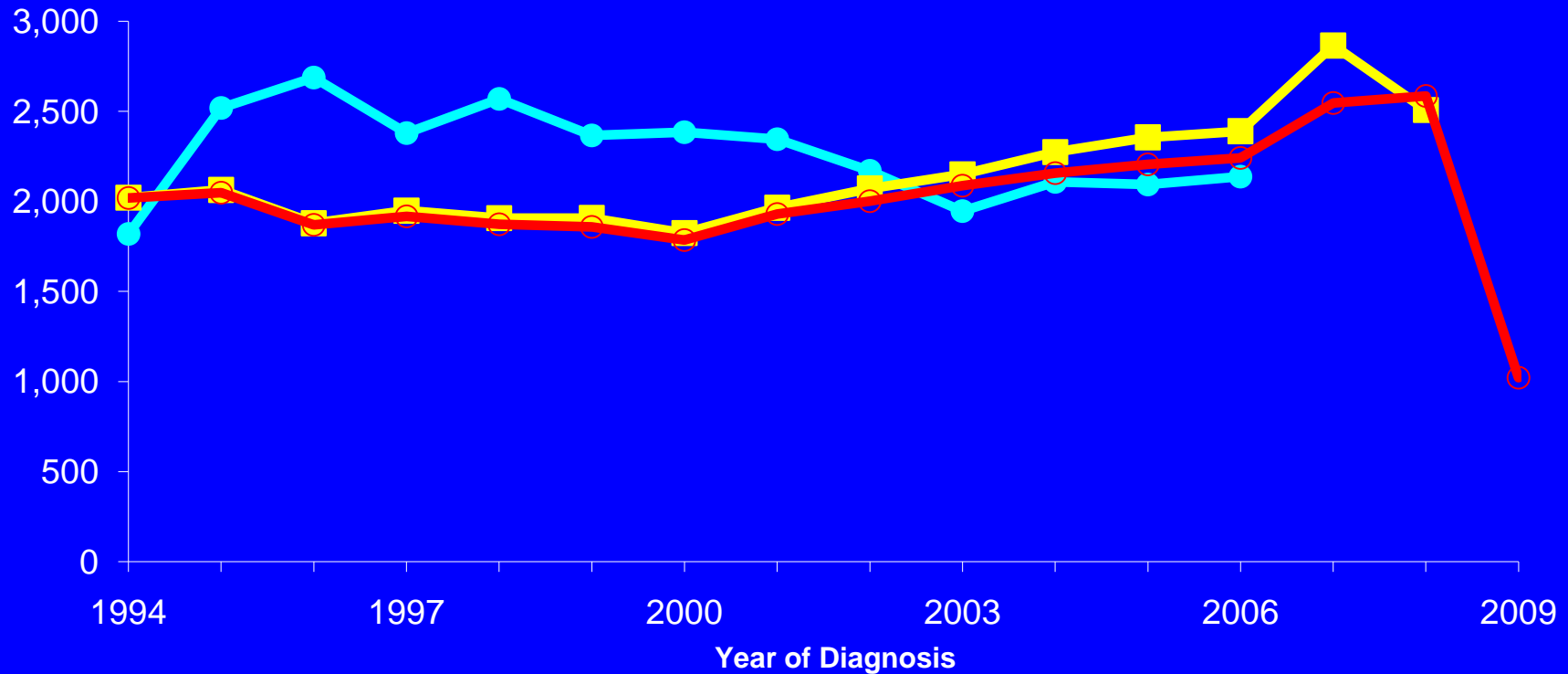
Epidemiological Trends

Maryland Reported HIV Diagnosis Trends



Code-Based and Name-Based Reported HIV Diagnosis Trends

Number of Events



Code-Based 12/07 Name-Based 12/08 Name-Based 12/09

Maryland Reported HIV Diagnosis Trends



- Code-based reporting
 - Prospective (1994 and forward) laboratory-based reporting
 - Creates a “left” bias
- Name-based reporting
 - Prospective laboratory-based (2007 and forward) and retrospective provider-based reporting (2007 and backward)
 - Creates a “right” bias

Other Factors Affecting Maryland's Reported HIV Diagnosis Trends

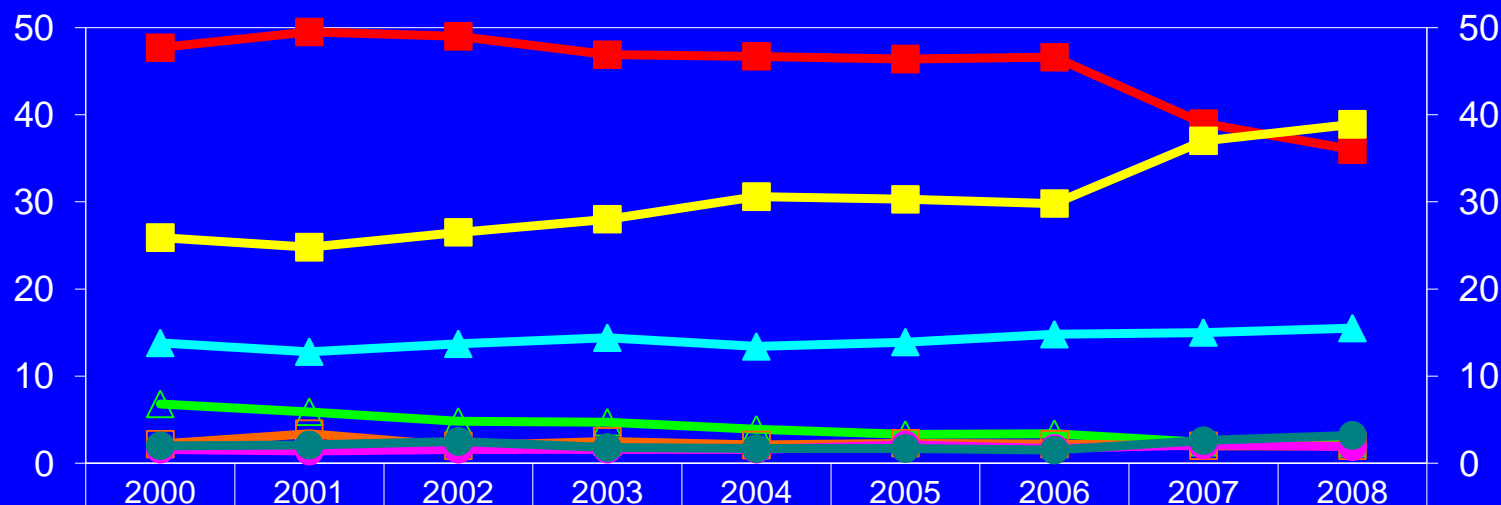







- CDC's HIV screening recommendation for the general population
- Maryland's expanded HIV testing program
- Reduction in surveillance funding/staffing
- Possible underlying changes in the epidemic

Maryland Reported HIV Diagnosis Trends - Region



Percent



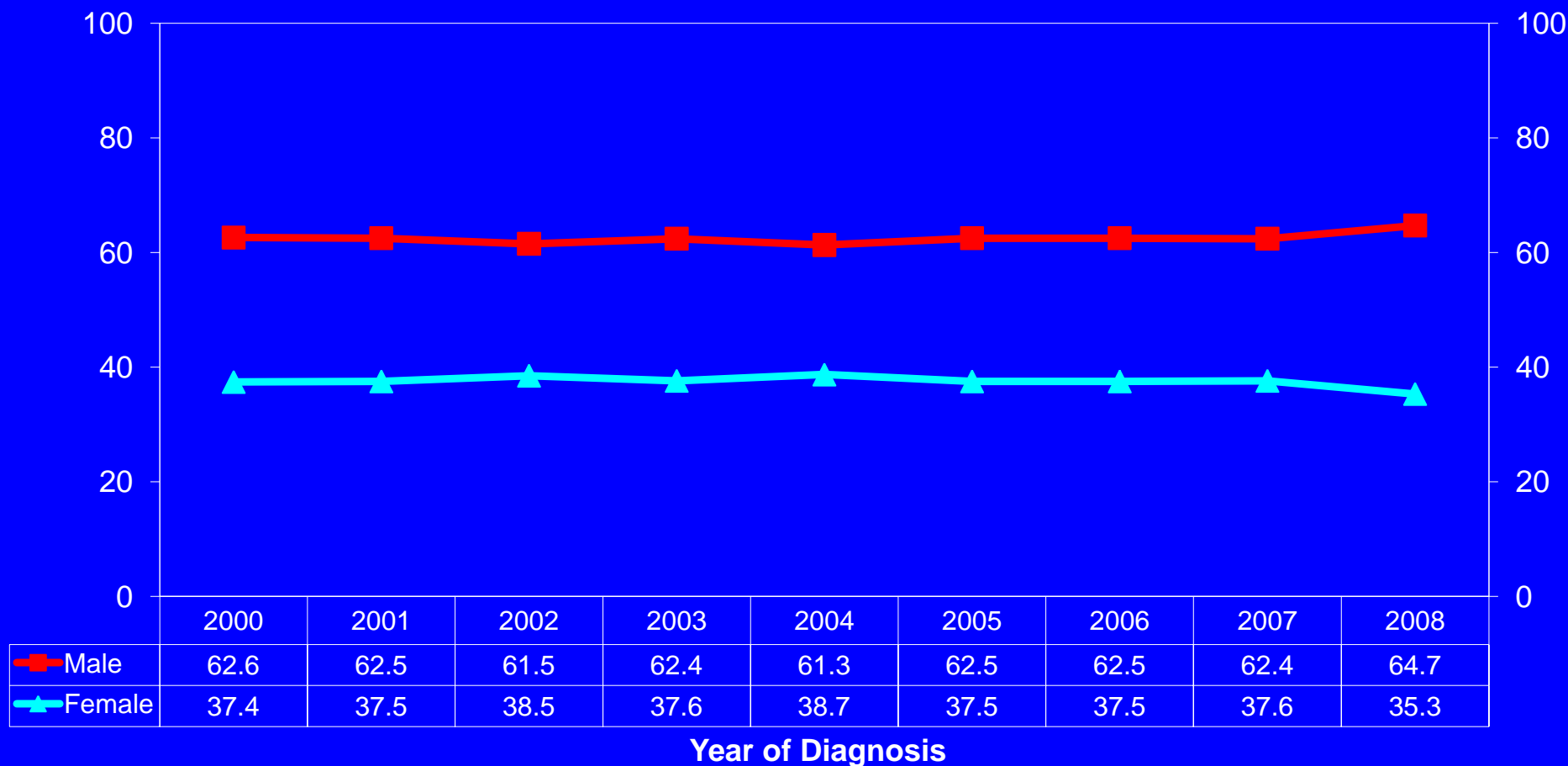
	Baltimore City	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Suburban Baltimore	13.8	12.8	13.7	14.4	13.4	13.9	14.8	15.0	15.5
	Suburban Washington	25.9	24.8	26.5	28.0	30.6	30.3	29.8	37.0	38.9
	Corrections	6.8	5.9	4.8	4.7	3.9	3.3	3.4	2.4	2.3
	Eastern	2.2	3.4	2.0	2.5	2.1	2.3	2.2	2.0	2.0
	Southern	1.6	1.4	1.6	1.6	1.6	2.1	1.7	2.1	1.9
	Western	2.0	2.1	2.5	1.8	1.7	1.7	1.5	2.6	3.2

Year of Diagnosis

Maryland Reported HIV Diagnosis Trends - Gender



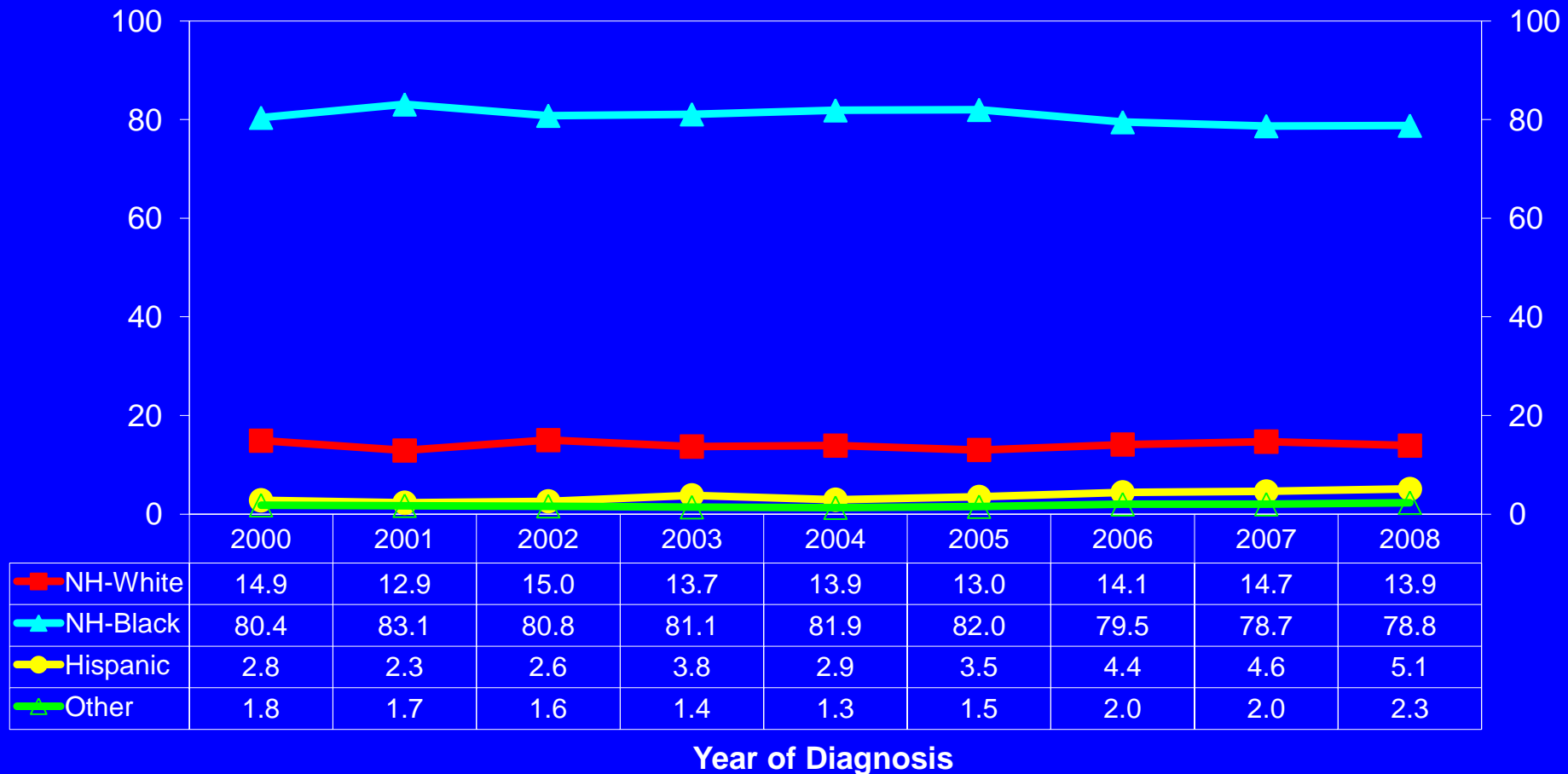
Percent



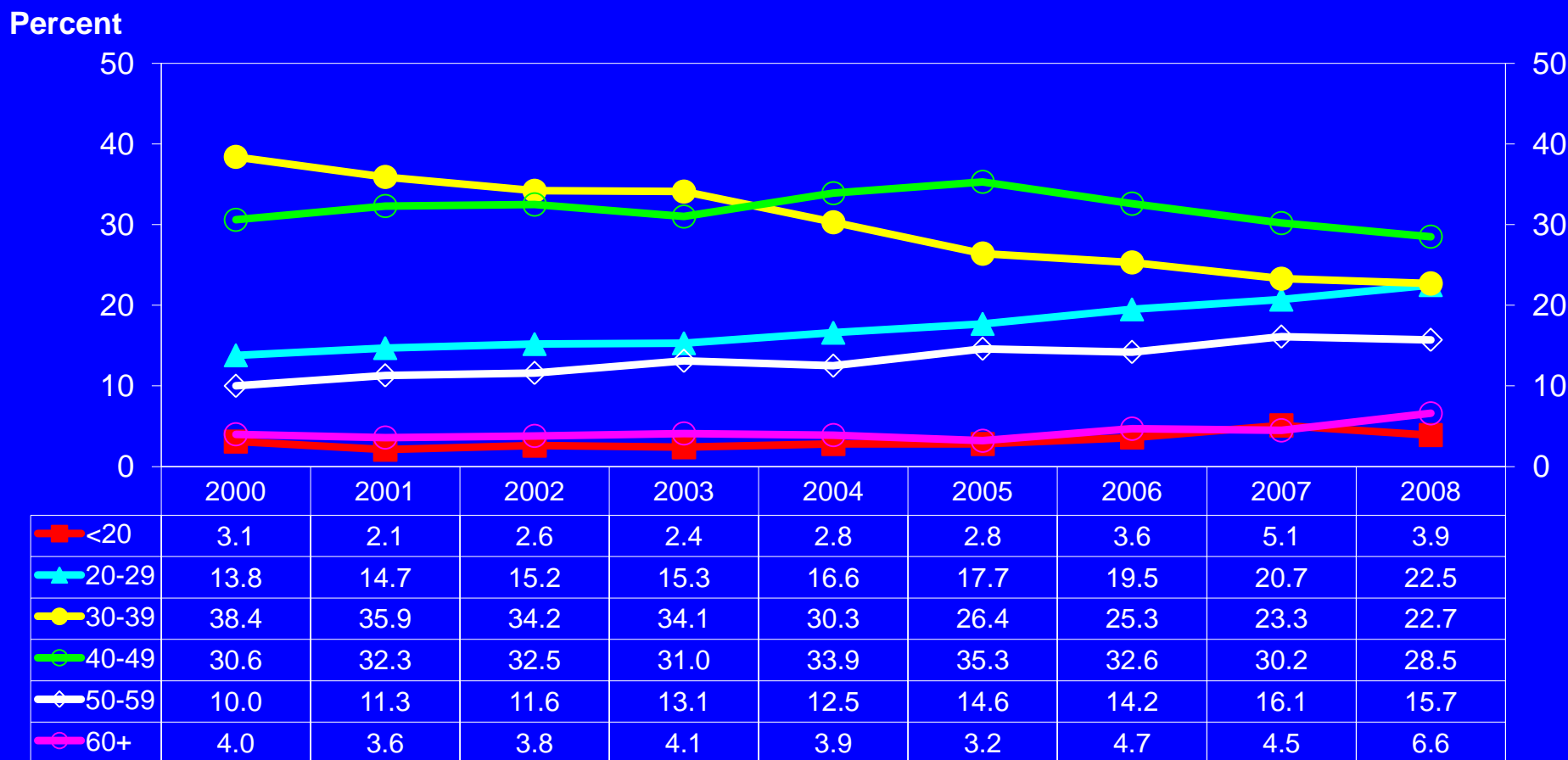
Maryland Reported HIV Diagnosis Trends - Race/Ethnicity



Percent



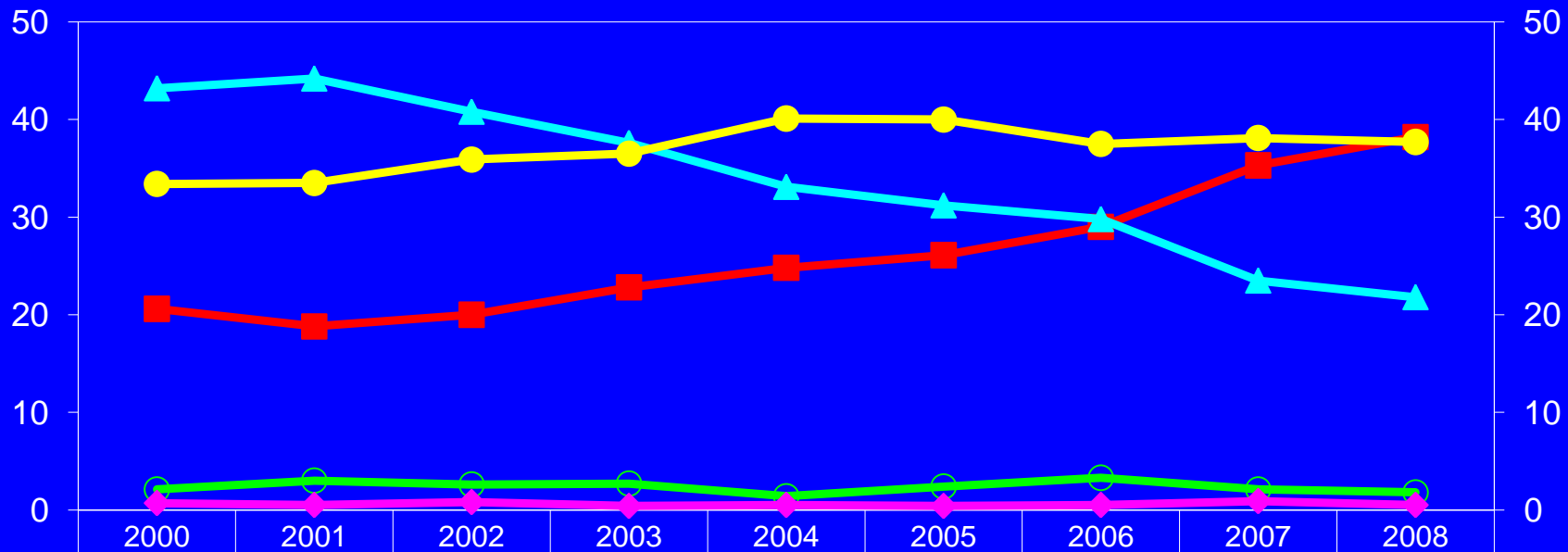
Maryland Reported HIV Diagnosis Trends - Age



Maryland Reported HIV Diagnosis Trends - Exposure



Percent



	2000	2001	2002	2003	2004	2005	2006	2007	2008
MSM	20.6	18.8	20.0	22.8	24.8	26.1	29.0	35.3	38.2
IDU	43.2	44.2	40.8	37.6	33.1	31.2	29.8	23.5	21.8
HetSex	33.4	33.5	35.9	36.5	40.1	40.0	37.5	38.1	37.7
MSM/IDU	2.1	3.0	2.6	2.7	1.4	2.4	3.3	2.1	1.8
Other	0.7	0.5	0.8	0.4	0.5	0.4	0.5	0.9	0.5

Year of Diagnosis



Maryland Reported HIV Diagnosis Trends

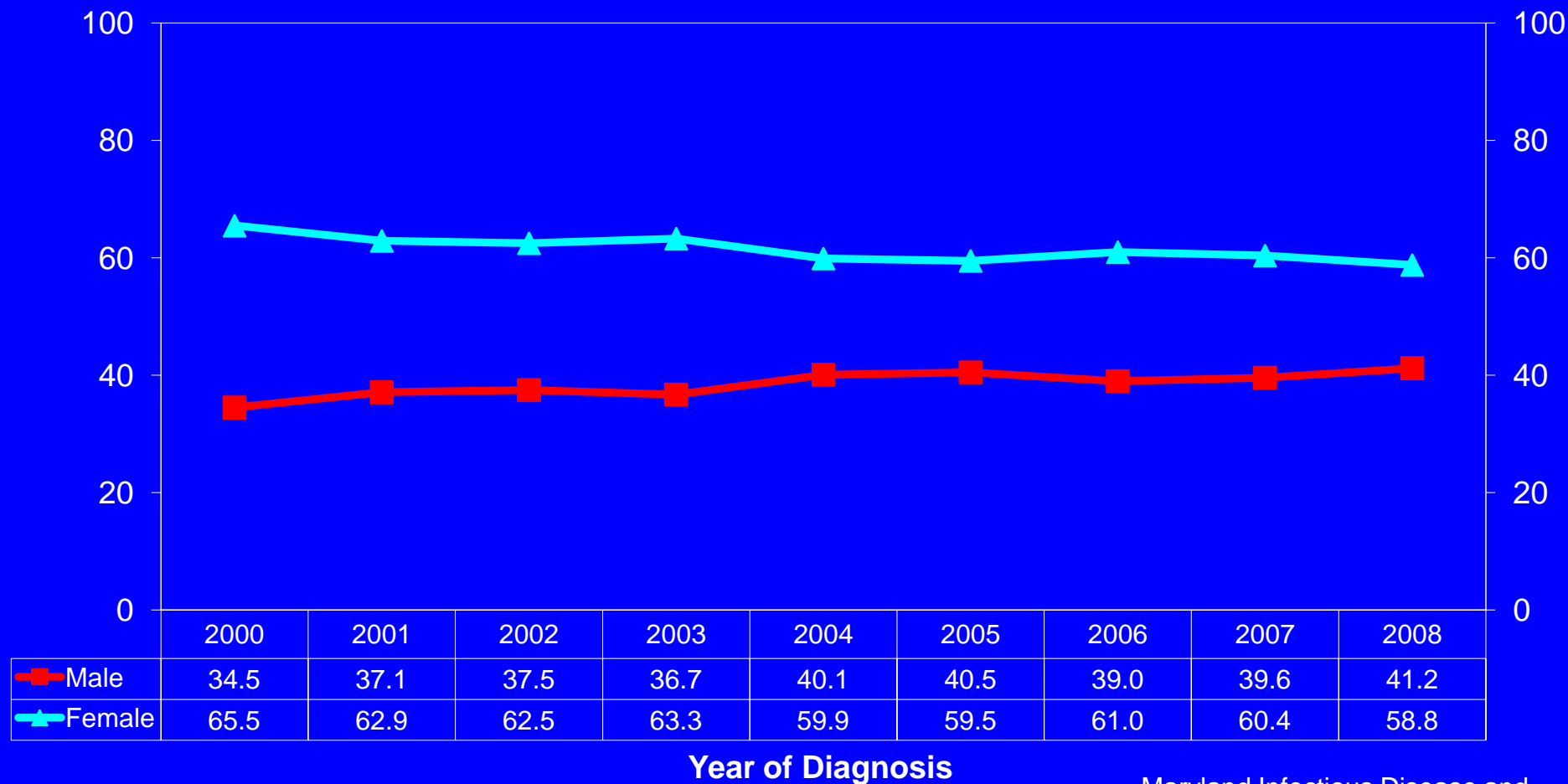
Heterosexual Exposure



Maryland Reported HIV Diagnosis Trends

Heterosexual Exposure - Gender

Percent

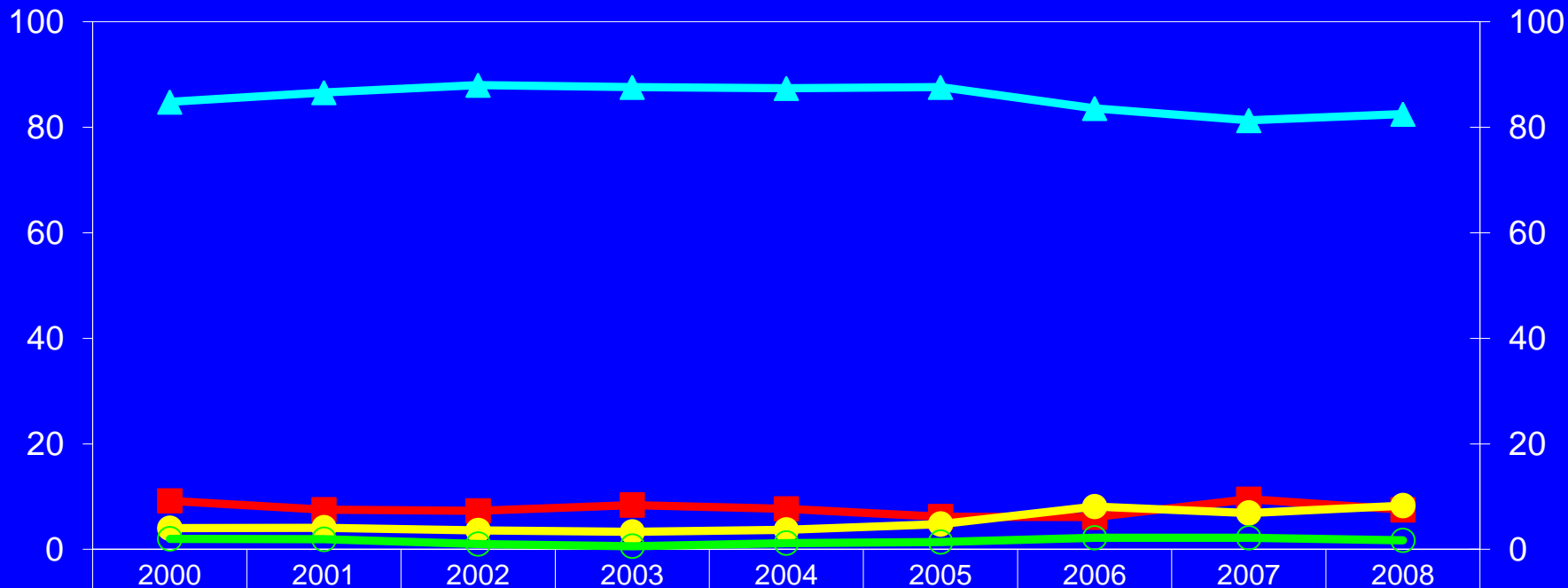


Maryland Reported HIV Diagnosis Trends

Heterosexual Exposure - Race/Ethnicity



Percent



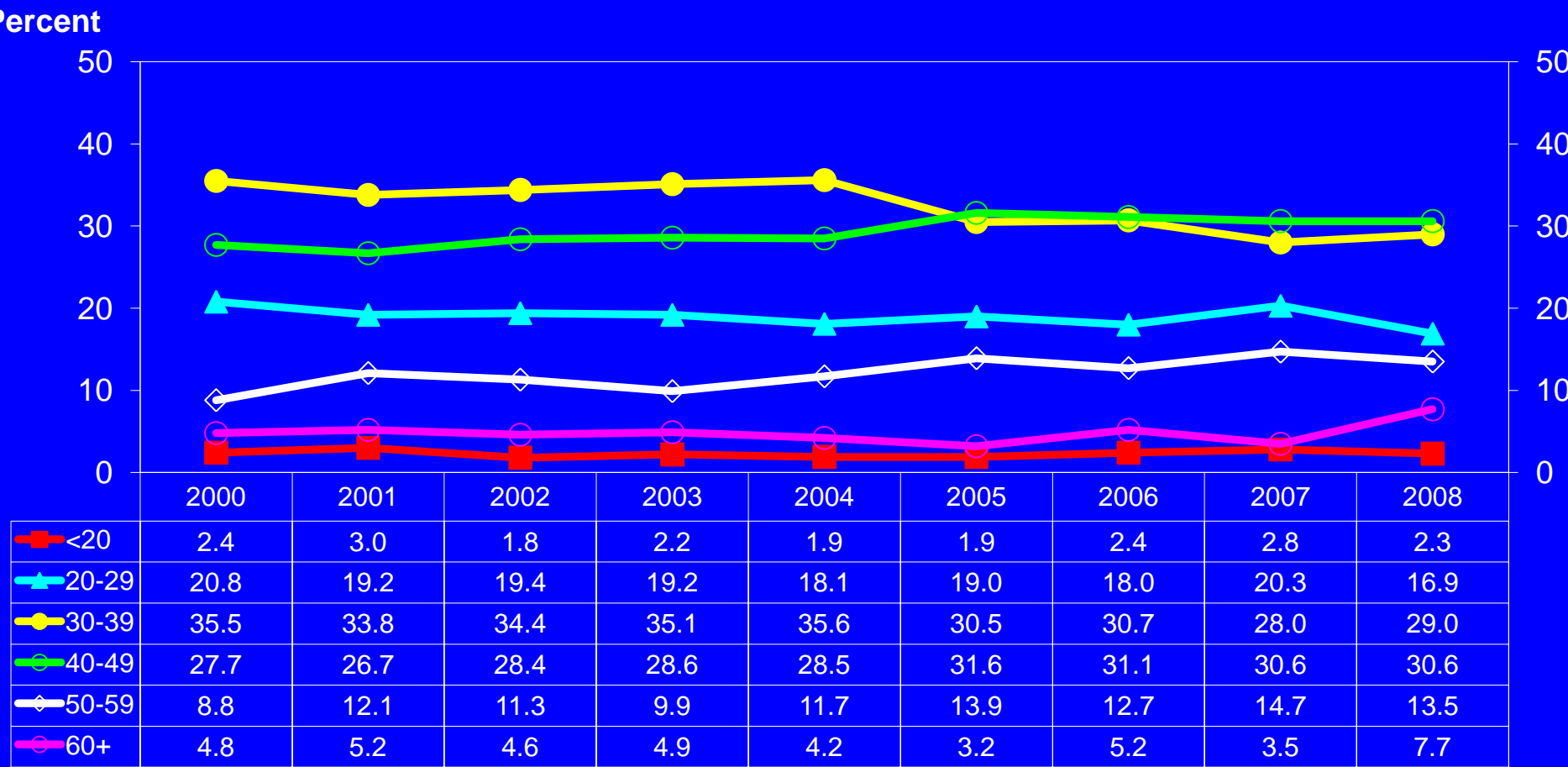
	2000	2001	2002	2003	2004	2005	2006	2007	2008
NH-White	9.2	7.5	7.3	8.4	7.7	6.2	6.1	9.5	7.5
NH-Black	84.8	86.6	88.0	87.6	87.4	87.6	83.6	81.3	82.5
Hispanic	4.0	4.1	3.6	3.3	3.7	4.8	8.1	6.9	8.3
Other	2.0	1.9	1.0	0.6	1.2	1.4	2.2	2.2	1.7

Year of Diagnosis



Maryland Reported HIV Diagnosis Trends

Heterosexual Exposure - Age



Year of Diagnosis



Maryland Reported HIV Diagnosis Trends

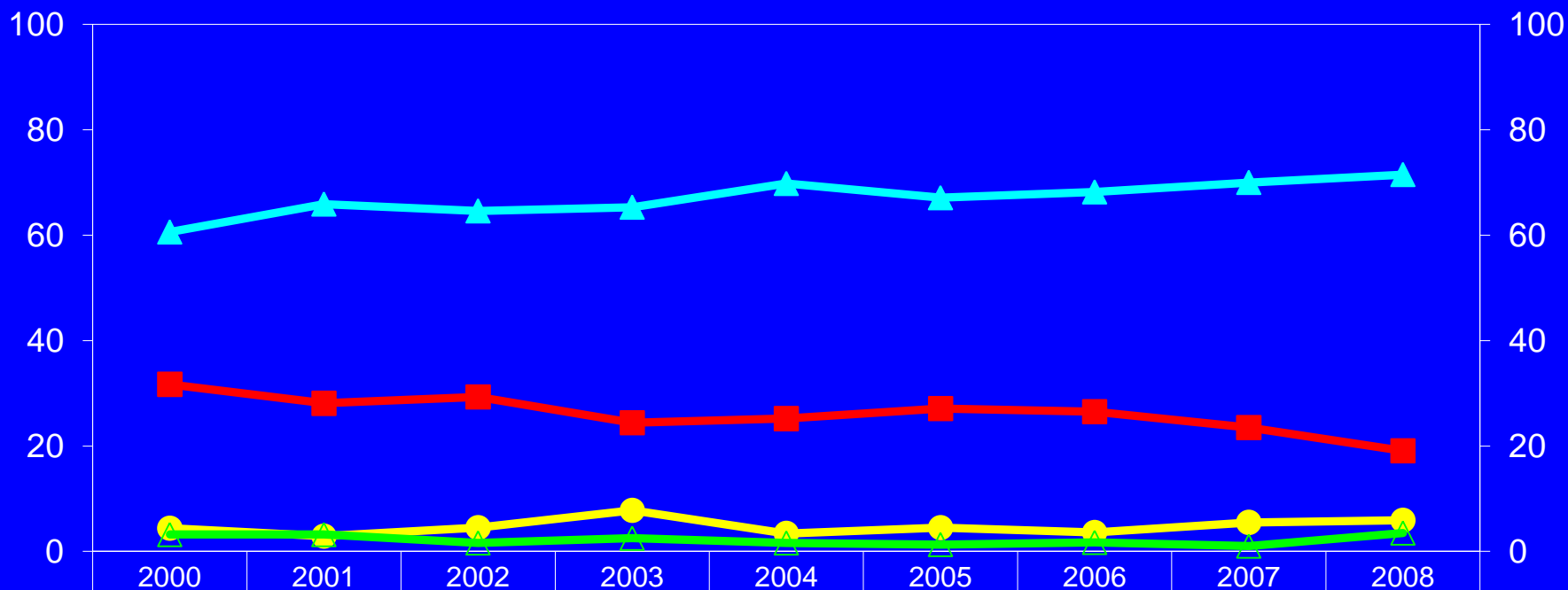
MSM Exposure

Maryland Reported HIV Diagnosis Trends

MSM Exposure - Race/Ethnicity



Percent

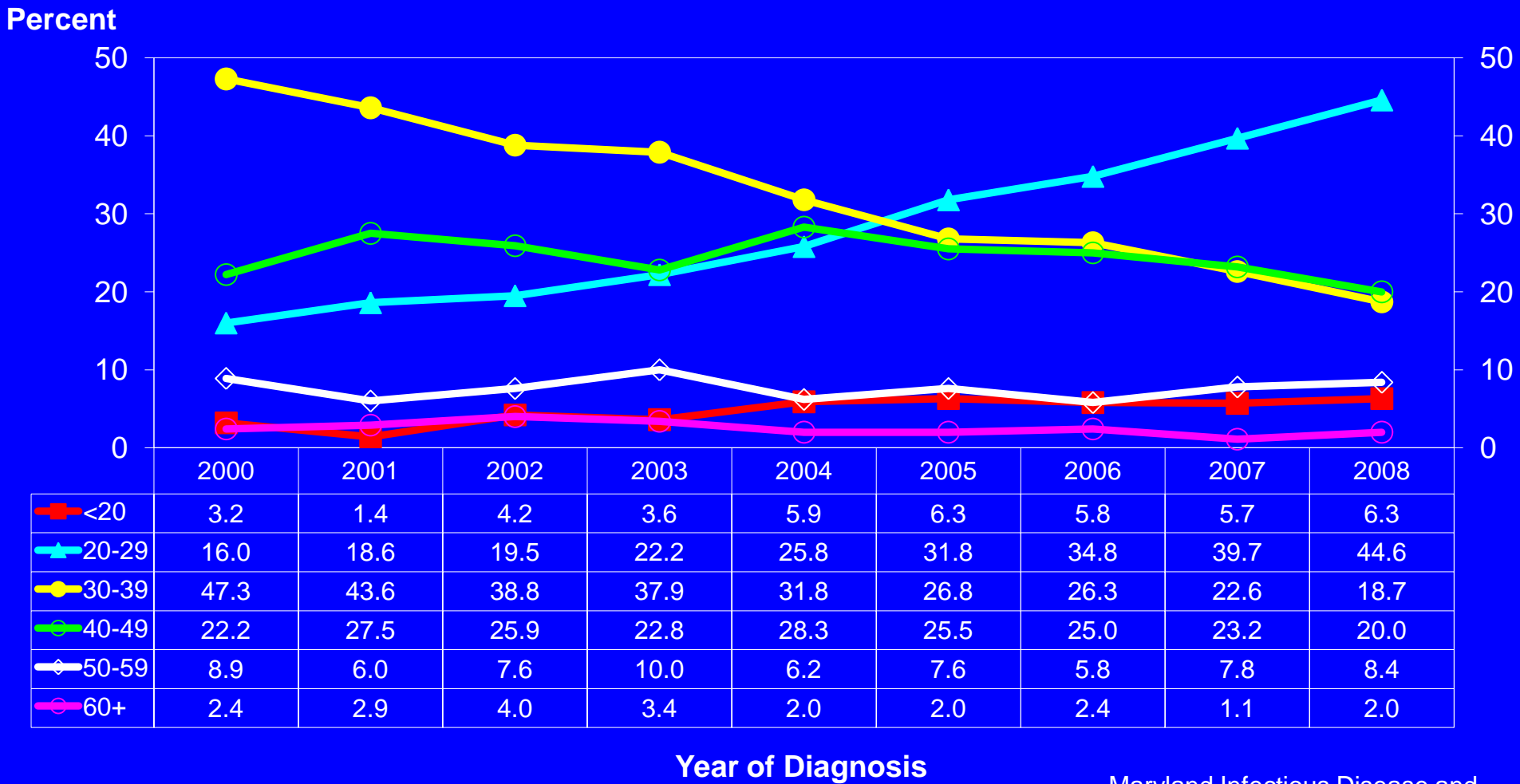


	2000	2001	2002	2003	2004	2005	2006	2007	2008
NH-White	31.7	28.1	29.3	24.4	25.2	27.1	26.5	23.5	19.1
NH-Black	60.6	65.9	64.6	65.3	69.8	67.1	68.2	70.0	71.5
Hispanic	4.4	2.9	4.5	7.8	3.4	4.5	3.6	5.5	5.9
Other	3.2	3.2	1.6	2.5	1.6	1.3	1.7	1.0	3.5

Year of Diagnosis

Maryland Reported HIV Diagnosis Trends

MSM Exposure - Age





Maryland Reported HIV Diagnosis Trends

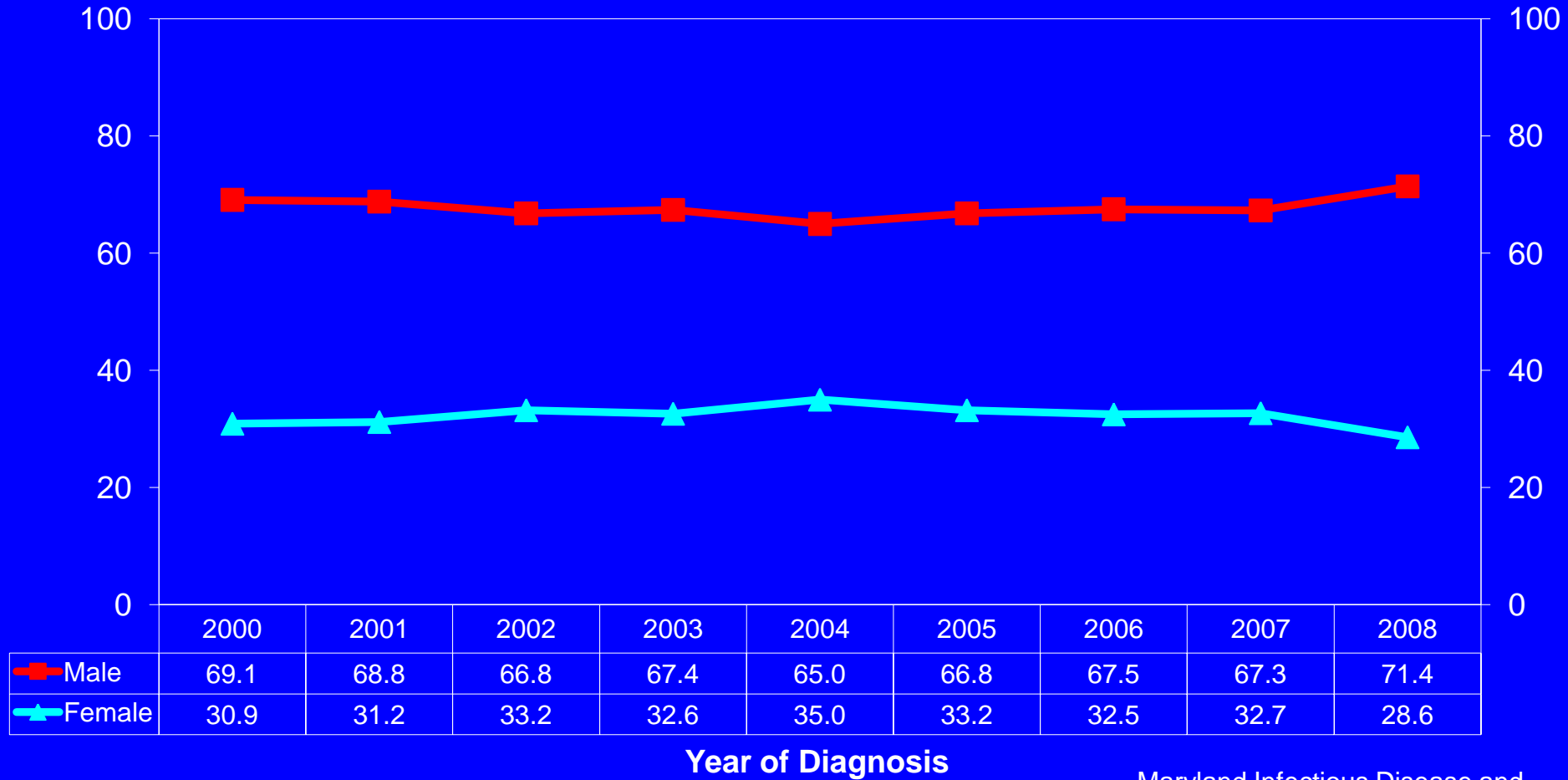
IDU Exposure

Maryland Reported HIV Diagnosis Trends

IDU Exposure - Gender



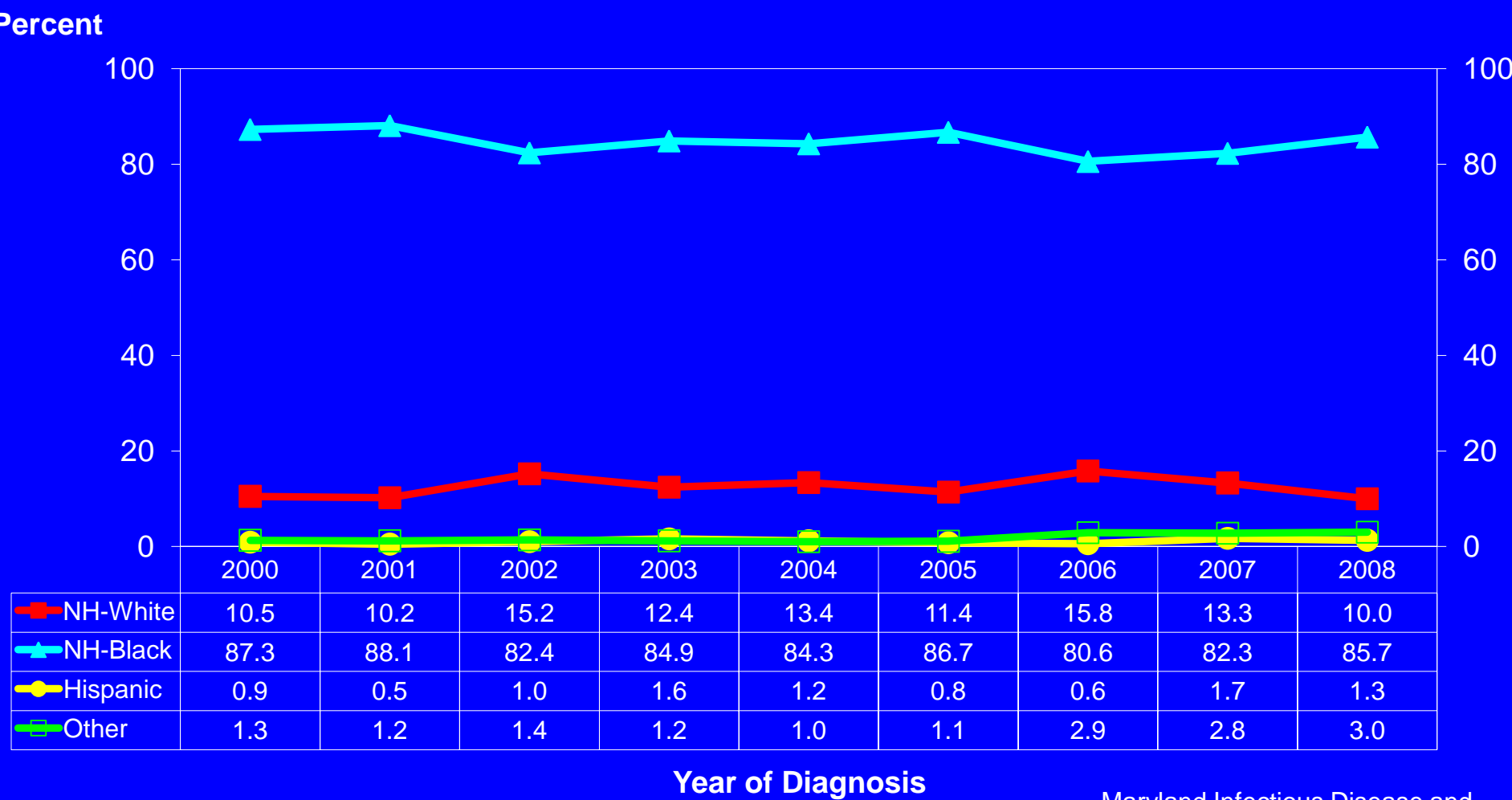
Percent





Maryland Reported HIV Diagnosis Trends

IDU Exposure - Race/Ethnicity

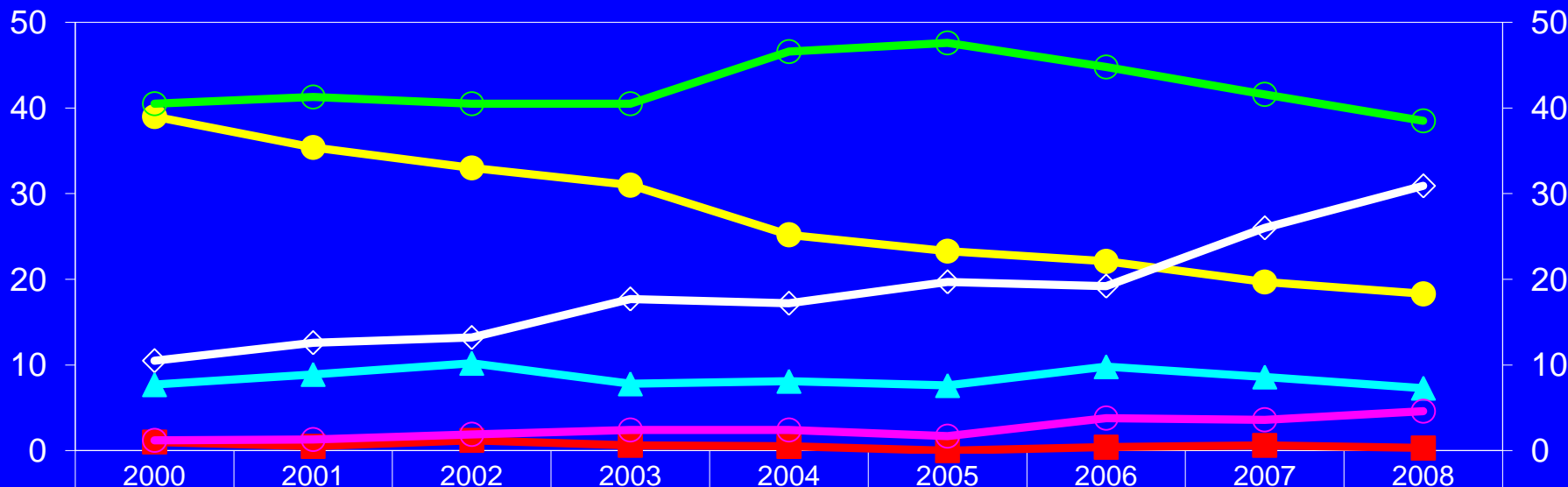


Maryland Reported HIV Diagnosis Trends

IDU Exposure - Age



Percent



	2000	2001	2002	2003	2004	2005	2006	2007	2008
<20	1.0	0.5	1.2	0.6	0.5	0.0	0.4	0.6	0.3
20-29	7.7	8.9	10.2	7.8	8.1	7.6	9.8	8.6	7.3
30-39	39.0	35.4	33.0	31.0	25.2	23.3	22.1	19.7	18.3
40-49	40.5	41.3	40.5	40.5	46.6	47.6	44.8	41.6	38.5
50-59	10.5	12.6	13.2	17.7	17.2	19.7	19.2	26.0	30.9
60+	1.2	1.3	1.9	2.4	2.4	1.7	3.8	3.6	4.6

Year of Diagnosis



Priority Population Recommendations

Maryland HIV Prevention Priorities



1) HIV Positive Persons

Living HIV cases on 12/31/2008 (N=29,021)

79% non-Hispanic black

64% male

38% were 40-49 years old on 12/31/2008

Maryland HIV Prevention Priorities (continued)



2) Heterosexuals

38% of 2008 reported HIV diagnoses (N≈971)

82% non-Hispanic black

41% male

31% were 40-49 years old at HIV diagnosis

Maryland HIV Prevention Priorities (continued)



3) Men who have Sex with Men

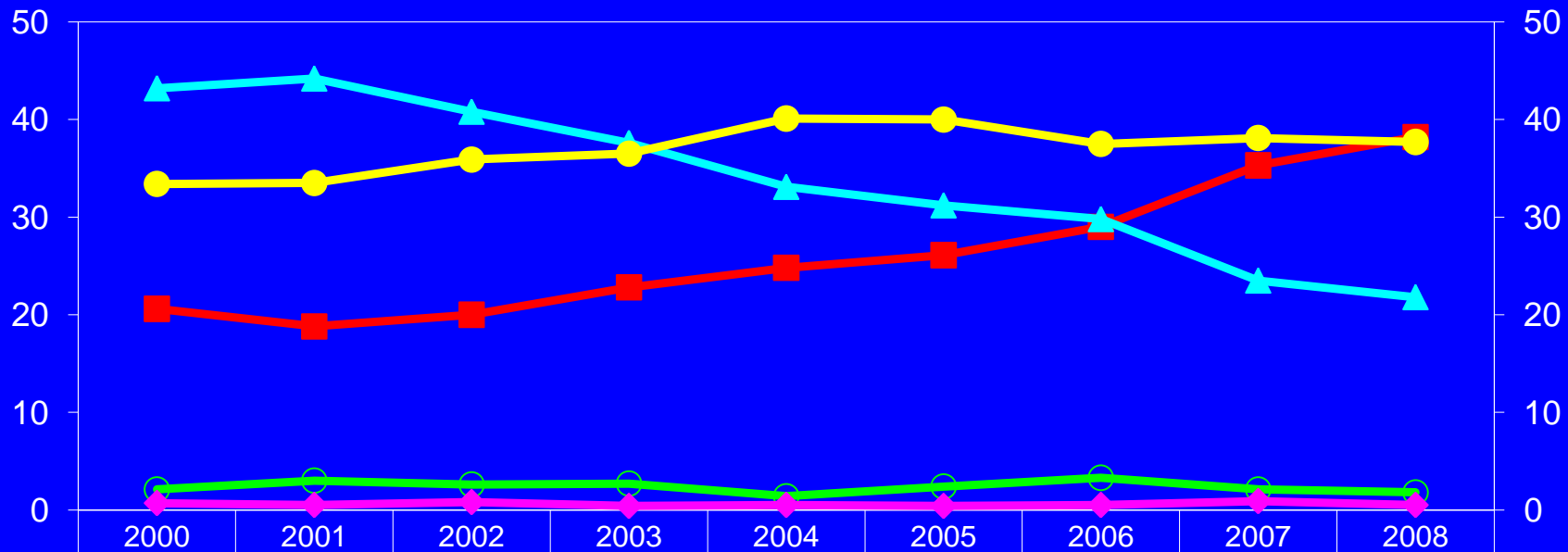
- ➔ 40% of 2008 reported HIV diagnoses (N≈1,030)
- 72% non-Hispanic black
- 45% were 20-29 years old at HIV diagnosis
- (includes MSM and MSM/IDU)

Consider ranking change

Maryland Reported HIV Diagnosis Trends - Exposure



Percent



	2000	2001	2002	2003	2004	2005	2006	2007	2008
MSM	20.6	18.8	20.0	22.8	24.8	26.1	29.0	35.3	38.2
IDU	43.2	44.2	40.8	37.6	33.1	31.2	29.8	23.5	21.8
HetSex	33.4	33.5	35.9	36.5	40.1	40.0	37.5	38.1	37.7
MSM/IDU	2.1	3.0	2.6	2.7	1.4	2.4	3.3	2.1	1.8
Other	0.7	0.5	0.8	0.4	0.5	0.4	0.5	0.9	0.5

Year of Diagnosis

Maryland HIV Prevention Priorities (continued)



4) Injection Drug Users

24% of 2008 reported HIV diagnoses (N≈609)

86% non-Hispanic black

71% male

37% were 40-49 years old at HIV diagnosis
(includes IDU and MSM/IDU)

5) Special Populations



**Maryland
Infectious Disease
and Environmental
Health
Administration**

<http://eh.dhmh.md.gov/ideah/>